

Complete Summary

GUIDELINE TITLE

2002 national guidelines for the management of late syphilis.

BIBLIOGRAPHIC SOURCE(S)

Association for Genitourinary Medicine (AGUM), Medical Society for the Study of Venereal Disease (MSSVD). 2002 national guidelines for the management of late syphilis. London: Association for Genitourinary Medicine (AGUM), Medical Society for the Study of Venereal Disease (MSSVD); 2002. Various p. [22 references]

GUIDELINE STATUS

This is the current release of the guideline. This guideline updates a previously released version.

COMPLETE SUMMARY CONTENT

SCOPE
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SCOPE

DISEASE/CONDITION(S)

Late syphilis

GUIDELINE CATEGORY

Diagnosis
 Evaluation
 Management
 Treatment

CLINICAL SPECIALTY

Infectious Diseases
Obstetrics and Gynecology
Urology

INTENDED USERS

Physicians

GUIDELINE OBJECTIVE(S)

To present a national guideline for the management of late syphilis

TARGET POPULATION

Individuals in the United Kingdom with late syphilis

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnosis

1. Laboratory studies

- Treponema pallidum serology including treponemal enzyme-linked immunoassay (EIA) screening test confirmed by Treponema pallidum particle agglutination test (TPPA)/Treponema pallidum haemagglutination test (TPHA), or fluorescent treponemal antibody absorption test (FTA-abs)

or

Treponema pallidum particle agglutination test/Treponema pallidum haemagglutination test confirmed by enzyme-linked immunoassay or fluorescent treponemal antibody absorption test,

- Non-treponemal tests: Venereal Diseases Research Laboratory (VDRL)/rapid plasma reagin (RPR) test

Other:

- Blood: white blood cell count
- Cerebrospinal fluid (CSF) examination, such as venereal diseases research laboratory test, rapid plasma reagin test and fluorescent treponemal antibody absorption test assays
- Histological examination of gummata

2. Clinical assessment, including:

- History focusing on previous clinical manifestations and testing for syphilis including antenatal screening, obstetric history, blood donation, and sexually transmitted infections clinic attendance
- Possible symptoms of early and late manifestations of syphilis and congenital syphilis

- Careful clinical examination including assessment for aortic regurgitation, pupillary changes (Argyll-Robertson pupils) and dorsal spinal column impairment
 - Possible differential diagnosis: Yaws
3. Other studies, including lumbar puncture for cerebrospinal fluid examination, chest X-ray
 4. Screens for other sexually transmitted infections and HIV

Treatment/Management:

1. Antimicrobial therapy:
 - Procaine penicillin alone or with probenecid
 - Benzathine penicillin
 - Doxycycline
 - Benzylpenicillin
 - Amoxicillin plus probenecid
2. Management of treatment reactions, including prednisolone, antipyretics, diazepam, epinephrine, antihistamine, hydrocortisone (refer to Early Syphilis Guidelines)
3. Referral to cardiologist for suspected cardiovascular syphilis or referral to appropriate specialist for gummata affecting vital organs
4. Follow-up, including rapid plasma reagin/Venereal Diseases Research Laboratory test, and cerebrospinal fluid examination
5. Management of contacts

MAJOR OUTCOMES CONSIDERED

- Incidence of neurological involvement in late syphilis
- Incidence of neurosyphilis in HIV-infected patients
- Clinical progression of asymptomatic neurosyphilis
- Treponemicidal levels of penicillin in the cerebrospinal fluid

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
 Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

This guideline was obtained by searching the Medline (U.S. National Library of Medicine) database from 1966 up until May 2001 and the Embase database from 1980 to May 2001. The Medical Subject Headings (MeSH) terms "neurosyphilis", "cardiovascular syphilis", and "latent syphilis" were each entered individually into a combined search with the free text searches of "therapy" and "treatment". A free text search combining "gumma*" with "treatment" and "therapy" was also undertaken. A comprehensive review of syphilis therapy conducted in 1989 as preparation for the development of the Centers for Disease Control (CDC) guidelines was examined to obtain key references published before 1966.

The U.S. Centers for Disease Control and Prevention Sexually Transmitted Infection guidelines of 1998 (1998 guidelines for treatment of sexually transmitted diseases. Centers for Disease Control and Prevention. MMWR Recomm Rep. 1998 Jan 23; 47[RR-1]: 1-111) are used as a source for expert consensus on the treatment of late syphilis.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence:

I a

- Evidence obtained from meta-analysis of randomised controlled trials

I b

- Evidence obtained from at least one randomised controlled trial

II a

- Evidence obtained from at least one well designed controlled study without randomisation

II b

- Evidence obtained from at least one other type of well designed quasi-experimental study

III

- Evidence obtained from well designed non-experimental descriptive studies such as comparative studies, correlation studies, and case control studies

IV

- Evidence obtained from expert committee reports or opinions and/or clinical experience of respected authorities

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

The revision process commenced with authors being invited to modify and update their 1999 guidelines. These revised versions were posted on the website for a 3 month period and comments invited. The Clinical Effectiveness Group and the authors concerned considered all suggestions and agreed on any modifications to be made.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Grading of Recommendations:

A (Evidence Levels I a, I b)

- Requires at least one randomised controlled trial as part of the body of literature of overall good quality and consistency addressing the specific recommendation.

B (Evidence Levels II a, II b, III)

- Requires availability of well conducted clinical studies but no randomised clinical trials on the topic of recommendation.

C (Evidence Level IV)

- Requires evidence from expert committee reports or opinions and/or clinical experience of respected authorities.
- Indicates absence of directly applicable studies of good quality.

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

The initial versions of the guidelines were sent for review to the following:

- Clinical Effectiveness Group (CEG) members
- Chairs of UK Regional GU Medicine Audit Committees who had responded to an invitation to comment on them
- Chair of the Genitourinary Nurses Association (GUNA)
- President of the Society of Health Advisers in Sexually Transmitted Diseases (SHASTD)
- Clinical Effectiveness Committee of the Faculty of Family Planning and Reproductive Health Care (FFP)

Comments were relayed to the authors and attempts made to reach a consensus on points of contention with ultimate editorial control resting with the Clinical Effectiveness Group. Finally, all the guidelines were ratified by the councils of the two parent societies.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Definitions of the levels of evidence (I-IV) and grades of recommendation (A-C) are repeated at the end of the "Major Recommendations" field.

Diagnosis

Diagnosis of late syphilis is based on a combination of positive *Treponema pallidum* serology (e.g., a positive enzyme-linked immunosorbent assay -EIA- screening test confirmed by *Treponema pallidum* particle agglutination/*Treponema pallidum* haemagglutination assay -TPPA/TPHA- or fluorescent treponemal antibody FTA-abs or a positive *Treponema pallidum* particle agglutination/*Treponema pallidum* haemagglutination assay screening test confirmed by an enzyme-linked immunosorbent assay or fluorescent treponemal antibody test) with or without positive non-treponemal tests (Venereal Disease Research Laboratory [VDRL], rapid plasma reagin [RPR]) and a careful clinical assessment (see the related National Guideline Clearinghouse (NGC) guideline summary [2002 National Guidelines on the Management of Early Syphilis](#)). This should include a history focusing on previous syphilis treatment and possible symptoms of early and late manifestations of syphilis. A history to identify previous clinical manifestations and testing for syphilis (antenatal screening, obstetric history, blood donation, and sexually transmitted infection [STI] clinic attendance) may also aid staging of infection. A clinical examination should be undertaken to exclude both early syphilis and the clinical manifestations of late infection. The examination should seek to identify the common manifestations of early syphilis such as genital and mucosal ulceration, skin rash and general lymphadenopathy. Clinical assessment for the manifestations of late syphilis should be guided by the history but should include examining for aortic regurgitation, pupillary changes (Argyll-Robertson pupils) and dorsal spinal column impairment. Examination should also attempt to exclude the presence of signs of congenital syphilis and the stigmata of yaws if this is a possible differential diagnosis.

Patients with positive syphilis serology with no adequate history of documented treatment and cure in the past and with no evidence to exclude reinfection should be assumed to have active syphilis. This therapeutic strategy should ensure that patients with active syphilis are not left untreated. But patients should have the rationale of this approach clearly explained, as it will entail possible unnecessary treatment of previously treated infections and possible misdiagnosis, such as patients with yaws.

Neurosyphilis

All patients with positive syphilis serology who have neurological symptoms or signs should undergo cerebrospinal fluid examination. Some clinicians also recommend cerebrospinal fluid examination for those with gummata or cardiovascular syphilis as these individuals have a higher incidence of neurosyphilis. (Gjestland, 1955) In order for these tests to be interpreted accurately it is important that the cerebrospinal fluid is not significantly (macroscopically [Izzat et al., 1971]) contaminated with blood. Almost all individuals who have symptomatic neurosyphilis have a positive non-treponemal (Venereal Disease Research Laboratory [VDRL] or rapid plasma reagin [RPR]) cerebrospinal fluid test and a raised cerebrospinal fluid white cell count (>5 cells/mm³) (Hooshmand, Escobar, & Kopf, 1972). Some experts believe that the fluorescent treponemal antibody test should be performed on the cerebrospinal fluid. Although the fluorescent treponemal antibody test has a lower specificity for a diagnosing for neurosyphilis than the Venereal Disease Research Laboratory (VDRL)/rapid plasma regain (RPR), it may be more sensitive and so if negative would usually exclude a diagnosis of neurosyphilis. (Hooshmand, Escobar, & Kopf, 1972) A negative cerebrospinal fluid *Treponema pallidum* haemagglutination assay would also usually exclude a diagnosis of neurosyphilis. It has been suggested that cerebrospinal fluid *Treponema pallidum* particle agglutination/*Treponema pallidum* haemagglutination titres may be useful in excluding a diagnosis of neurosyphilis. A diagnosis of neurosyphilis is unlikely if the cerebrospinal fluid *Treponema pallidum* haemagglutination titre is less than 320. (Luger, Marhold, & Schmidt, 1988) Some authorities recommend using an albumin corrected ratio of serum and cerebrospinal fluid *Treponema pallidum* haemagglutination titre (the "TPHA Index") to identify local antibody production within the central nervous system to improve the sensitivity and specificity of the diagnosis of neurological disease, however this is presently not widely used. (Gschnait, Schmidt, & Luger, 1981)

It has been reported that occasionally individuals with neurosyphilis have negative cerebrospinal fluid non-treponemal tests with a raised cerebrospinal fluid white cell count as the only sign of active infection. (Hooshmand, Escobar, & Kopf, 1972)

Cardiovascular syphilis

This diagnosis is made by the presence of the typical clinical features of cardiovascular syphilis (see original guideline document) combined with positive syphilis serology. In addition to a careful examination to exclude clinical evidence of aortic regurgitation, all patients with suspected late syphilis should have a chest X-ray to exclude evidence of an aortic aneurysm. Most patients with suspected cardiovascular syphilis need review and assessment by a cardiologist.

Gummata

Diagnosis of syphilitic gummata is usually made on clinical grounds; typical nodules/plaques or destructive lesions in individuals with positive syphilis serology. Histological examination of the lesions may suggest this diagnosis and very occasionally *T. pallidum* may be identified within the nodules by immunofluorescence.

Jarisch-Herxheimer reaction

Although much less common than in early syphilis (see guideline on early syphilis) this can occur in late infections shortly after administration of the first dose of therapy. There is concern that in late syphilis, this reaction might be associated with local oedema around syphilis lesions. If this occurs in vital areas such as the coronary ostia and central nervous system, it may have critical acute consequences. It has been suggested that all patients with symptomatic late syphilis should be treated with corticosteroids to reduce the risk of this phenomenon (evidence level IV, C). Although there is little published evidence to support this therapy, a dose of prednisolone 10-20 mgs by mouth three times daily for 3 days commencing 1 day prior to syphilis treatment has been reported to reduce the febrile episode associated with the Jarisch-Herxheimer reaction in early syphilis. (Gudjonsson & Skog, 1968)

Management

Basic principles

- All patients with syphilis should have a screen for other sexually transmitted infections.
- The treatment of first choice for late syphilis is penicillin. (Hahn et al., 1958) Penicillin desensitisation should be considered for patients reporting penicillin allergy (Wendel et al., 1985) (See appendix 1 in original guideline document). Many people reporting penicillin allergy will not display hypersensitivity on re-exposure to penicillin either because the hypersensitivity has faded or they were never allergic to penicillin. A careful history may help to identify the latter group. Skin testing to confirm allergy should precede desensitisation. (See appendix 2 in original guideline document). Skin testing and desensitisation do carry risks of anaphylaxis and should be carried out with immediate access to resuscitation equipment and expertise. Desensitising pregnant women should be undertaken in close collaboration with the obstetric team.
- The penicillin-based regimens are safe to use in pregnancy and breast-feeding.
- It is recommended that all patients presenting with late syphilis have HIV testing. It is thought that HIV may modify the natural history of syphilis with a more rapid progression to neurosyphilis. (Johns, Tierney, & Felenstein, 1987) It has been suggested that there is an increased risk of treatment failure in HIV infected individuals with early syphilis who are treated with benzathine penicillin but there are no controlled trials of benzathine or any other therapies in late syphilis. It has been proposed that asymptomatic individuals with co-infection of HIV and late syphilis should be treated with procaine penicillin regimes as neurological involvement may be more common

(Centers for Disease Control & Prevention (CDC), 1998) although this is not supported by evidence.

- There is debate on the importance of cerebrospinal fluid examination in asymptomatic patients. A study of risks and benefits of lumbar puncture in this group has suggested that this is not indicated (Wiesel et al., 1985) and a wide range of penicillin doses appear efficacious in preventing clinical progression of asymptomatic neurosyphilis. (Hahn et al., 1956) A randomised controlled trial of benzathine penicillin which does not usually produce treponemicidal cerebrospinal fluid levels versus a therapy which produces treponemicidal levels in the cerebrospinal fluid showed no increased risk of progression from early syphilis to neurosyphilis even in those individuals with *T. pallidum* in the cerebrospinal fluid. (Rolfs et al., 1997) The Centers for Disease Control and Prevention guidelines do not recommend cerebrospinal fluid examinations for asymptomatic HIV antibody negative patients with syphilis. (CDC, 1998) They do recommend that HIV positive patients with late syphilis should be offered cerebrospinal fluid examination in view of the possibly faster evolution of late disease in this group. (Gudjonsson & Skog, 1968) Cerebrospinal fluid examination should also be considered for individuals with neurological (including ophthalmological) symptoms or signs, and people with gummata and cardiovascular disease. In the absence of cerebrospinal fluid examination some clinicians may prefer to treat asymptomatic late syphilis with the same therapies as neurosyphilis while others may prefer to use a regimen for late latent syphilis.
- Procaine penicillin dose: For neurosyphilis, 2.4 g (2.4 MU) intramuscularly once daily (OD) is the favoured dose in the Centers for Disease Control and Prevention 1998 guidelines (CDC, 1998) as it has been shown to produce treponemicidal levels in the cerebrospinal fluid (Dunlop, Al-Egaily, & Houang, 1981) although another study has indicated that this may be an inconsistent finding. (Van der Valk et al., 1988) However, it is likely that lower doses of procaine penicillin (1.8-2.4 gm once daily [OD]) are as efficacious and a range of possible doses is given to reflect this and the available formulations of this drug. (Rolfs et al., 1997) Successful completion of a 17 day course has been demonstrated to be delivered consistently in an United Kingdom Genitourinary Medicine setting. (Crowe et al., 1997)

Drug Treatment

Late latent syphilis

- First line therapies:
 - Procaine penicillin 0.75 gm intramuscularly once daily (OD) for 17 days (Hellerstrom & Skog, 1962) (evidence level III, level of recommendation B)
 - Benzathine penicillin 2.4 g intramuscularly weekly for two weeks (three doses) (III, B)
- Second line therapies:
 - Doxycycline 200 mgs by mouth (PO) twice daily (BD) for 28 days. For use in individuals who are allergic to penicillin and those declining parenteral therapy (IV, C). Doxycycline 100 mgs by mouth twice daily (BD) for 28 days is probably sufficient treatment, but the higher dose is usually well tolerated and allows better therapeutic safety if doses are missed.

- Amoxicillin 2 gms by mouth three times daily (TDS) plus probenecid 500 mg four times daily (QDS) for 28 days (Morrison, Harrison, & Tramout, 1985) (III, C)

Cardiovascular syphilis

- Drug therapy: as for late latent syphilis (Hellerstrom & Skog, 1962; St. John, 1976) (assuming neurosyphilis has been excluded, see above)
- Other management considerations: all patients with suspected cardiovascular syphilis should be treated with the drug therapy as above and also should be reviewed by a cardiologist. Cardiovascular lesions may progress despite adequate treatment for syphilis
- All patients with cardiovascular syphilis should be reconsidered for corticosteroid cover at the start of therapy (see Jarisch-Herxheimer reaction)

Gummata

- Drug therapy: as for late latent syphilis (Hellerstrom & Skog, 1962) (assuming neurosyphilis has been excluded)
- Other management considerations: follow up depends on the extent and site of the gummata. Gummata affecting vital organs should be managed in collaboration with the appropriate specialist

Neurosyphilis

- First line drug therapy: procaine penicillin 2 gm intramuscularly once daily (OD) plus probenecid 500 mg by mouth four times daily (QDS) for 17days (Dunlop, Al-Egaily, & Houang, 1981) (III, C)
- Alternative regimen: benzylpenicillin 1.8-2.4 g. daily, as 0.3-0.4 g intravenously every 4 hours for 17days (III, C)
- Second line therapies: doxycycline 200 mgs by mouth twice daily (BD) for 28 days (Whiteside Yim, Flynn, & Fitzgerald, 1985) (IV, C); amoxicillin 2 gm by mouth three times daily (TDS) plus probenecid 500 mgs by mouth four times daily (QDS) for 28 days (Morrison, Harrison, & Tramout, 1985) (IV, C). All patients with neurological syphilis should be considered for corticosteroid cover at the start of the therapy (see Jarisch-Herxheimer reaction)

Procaine Toxicity

See the related National Guideline Clearinghouse summary [2002 National Guidelines on the Management of Early Syphilis](#).

Follow up

All patients should be reviewed after the treatment course is finished to ensure adherence with therapy and to follow up partner notification activity (see below). Those patients who present with symptoms or signs related to late syphilis would require ongoing clinical assessment. Patients who have positive non-treponemal tests (rapid plasma regain [RPR] /Venereal Diseases Research Laboratory [VDRL]) should be checked serologically at 6 monthly intervals until these are unchanged on consecutive visits (the patient becomes "serofast").

In patients with neurosyphilis, those found to have cerebrospinal fluid abnormalities at diagnosis should have repeated cerebrospinal fluid examination on a 6 monthly basis until the cell count is normal. The possibility of treatment failure should be considered if there is one or more of the following factors- clinical progression, increase in non-treponemal test titres by two or more dilutions, and failure of cerebrospinal fluid pleocytosis to resolve.

Management of contacts

Individuals with late latent syphilis are usually unable to transmit the infection to sexual partners. Although vertical transmission may occur at any time within 10 years of initial infection, this becomes unusual more than 2 years after the onset of early syphilis.

Because a previous negative sample would significantly affect disease staging and partner notification activity, a serious attempt to locate previous syphilis serology testing (antenatal, Genitourinary Medicine, blood donation, etc) should be made.

These basic principles should inform partner notification activity and it is reasonable for sexual partners and children born to women diagnosed with late latent syphilis of unknown duration to undergo serological screening with treponemal and non-treponemal serological tests to diagnose or exclude the infection.

The usual minimum incubation periods between initial infection and development of late symptomatic syphilis may be used to inform partner notification activity. These are gummata 2 years, neurosyphilis (tabes dorsalis and general paralysis of the insane [GPI]) 15 years, and cardiovascular syphilis 10 years. This can only act as a guide as accurate diagnosis of late syphilis is often difficult and shorter incubation periods have been described, particularly in association with HIV infection.

Definitions:

Levels of Evidence:

I a

- Evidence obtained from meta-analysis of randomised controlled trials

I b

- Evidence obtained from at least one randomised controlled trial

II a

- Evidence obtained from at least one well designed controlled study without randomisation

II b

- Evidence obtained from at least one other type of well designed quasi-experimental study

III

- Evidence obtained from well designed non-experimental descriptive studies such as comparative studies, correlation studies, and case control studies

IV

- Evidence obtained from expert committee reports or opinions and/or clinical experience of respected authorities

Grading of Recommendations:

A (Evidence Levels Ia, Ib)

- Requires at least one randomised controlled trial as part of the body of literature of overall good quality and consistency addressing the specific recommendation.

B (Evidence Levels IIa, IIb, III)

- Requires availability of well conducted clinical studies but no randomised clinical trials on the topic of recommendation.

C (Evidence Level IV)

- Requires evidence from expert committee reports or opinions and/or clinical experience of respected authorities.
- Indicates absence of directly applicable studies of good quality.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

REFERENCES SUPPORTING THE RECOMMENDATIONS

[References open in a new window](#)

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is graded and identified for select recommendations (see "Major Recommendations").

As few controlled trials of therapy for late syphilis have been published, clinical experience and expert opinion must guide treatment. The Centers for Disease

Control and Prevention Sexually Transmitted Infection guidelines of 1998 are used as a source for this expert consensus.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate management of late syphilis

POTENTIAL HARMS

Penicillin Allergy: Penicillin desensitisation should be considered for patients reporting penicillin allergy (See appendix 1 in original guideline document). Many people reporting penicillin allergy will not display hypersensitivity on re-exposure to penicillin either because the hypersensitivity has faded or they were never allergic to penicillin. A careful history may help to identify the latter group. Skin testing to confirm allergy should precede desensitisation. (See appendix 2 in original guideline document). Skin testing and desensitisation do carry risks of anaphylaxis and should be carried out with immediate access to resuscitation equipment and expertise. Desensitising pregnant women should be undertaken in close collaboration with the obstetric team.

Patients should be warned of possible reactions to treatment including Jarisch-Herxheimer reaction; procaine reaction (procaine psychosis, procaine mania, Hoignes syndrome); and anaphylactic shock (See the related National Guideline Clearinghouse (NGC) summary [2002 National Guidelines on the Management of Early Syphilis](#)).

Procaine toxicity: See the related National Guideline Clearinghouse summary [2002 National Guidelines on the Management of Early Syphilis](#).

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

It has been suggested that there is an increased risk of treatment failure in HIV infected individuals with early syphilis who are treated with benzathine penicillin but there are no controlled trials of benzathine or any other therapies in late syphilis. It has been proposed that asymptomatic individuals with co-infection of HIV and late syphilis should be treated with procaine penicillin regimes as neurological involvement may be more common although this is not supported by evidence.

There is debate on the importance of cerebrospinal fluid examination in asymptomatic patients. A study of risks and benefits of lumbar puncture in this group has suggested that this is not indicated and a wide range of penicillin doses appear efficacious in preventing clinical progression of asymptomatic neurosyphilis.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

The Clinical Effectiveness Group reminds the reader that guidelines in themselves are of no use unless they are implemented systematically. The following auditable outcome measures are provided:

- Contact management of partners and children initiated on all patients with untreated syphilis.
- All patients with suspected neurosyphilis have cerebrospinal fluid examination.
- All patients with positive non-treponemal tests (rapid plasma reagin [RPR] or venereal disease research laboratory [VDRL]) at diagnosis should have 6 monthly serology taken until serofast or negative.
- All patients with syphilis should have had an HIV test.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Living with Illness

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Association for Genitourinary Medicine (AGUM), Medical Society for the Study of Venereal Disease (MSSVD). 2002 national guidelines for the management of late syphilis. London: Association for Genitourinary Medicine (AGUM), Medical Society for the Study of Venereal Disease (MSSVD); 2002. Various p. [22 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1999 Aug (revised 2002)

GUIDELINE DEVELOPER(S)

British Association of Sexual Health and HIV - Medical Specialty Society

SOURCE(S) OF FUNDING

Not stated

GUIDELINE COMMITTEE

Clinical Effectiveness Group (CEG)
Syphilis Guidelines Revision Group

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Author: Patrick French

Syphilis Guidelines Revision Group: David Lewis (Chairman); Beng Goh; Patrick French; Hugh Young; Heather Wilson; Jacinta Jenkins; Marcia Burke; Andrew Turner

Clinical Effectiveness Group (CEG) Members: Keith Radcliffe (Chairman); Imtyaz Ahmed-Jusuf; Jan Welch; Mark FitzGerald; Janet Wilson

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Conflict of interest: None

GUIDELINE STATUS

This is the current release of the guideline. This guideline updates a previously released version.

GUIDELINE AVAILABILITY

Electronic copies: Available from the [British Association for Sexual Health and HIV Web site](#).

AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- UK national guidelines on sexually transmitted infections and closely related conditions. Introduction. Sex Transm Infect 1999 Aug; 75(Suppl 1): S2-3.

The following is also available:

- Revised UK national guidelines on sexually transmitted infections and closely related conditions 2002. Sex Transm Infect 2002; 78: 81-2

A related guideline is available:

- Management of early syphilis. United Kingdom: Association for Genitourinary Medicine (AGUM), Medical Society for the Study of Venereal Disease

(MSSVD); 2002. Various p. See related [National Guideline Clearinghouse \(NGC\) summary](#).

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on June 15, 2000. The information was verified by the guideline developer on October 13, 2000. This summary was updated on August 5, 2002.

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